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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/632,214	08/03/2000	Joseph M. Cannon	Cannon-104-93-51	1174

7590 09/02/2004

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 8910  
Reston, VA 20195

EXAMINER

VAUGHAN, MICHAEL R

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/632,214

Applicant(s)

CANNON ET AL.

Examiner

Michael R Vaughan

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **Detail Office Action**

Claims 1-25 have been fully reconsidered in light of arguments filed on 5-27-04.

### ***Response to Amendment***

Amendments to the abstract warrant the withdrawal of the previous objection.

Amendments to the drawings warrant the withdrawal of the previous objection.

### ***Response to Arguments***

Applicant's arguments filed 5-27-04 have been fully considered but they are not persuasive.

Applicant alleges on page 1 of the remarks that neither Chou nor Schneier teach a password comparison at the near end fax machine. Applicant has alleged that Schneier's host on page 54 is the far end. Examiner respectfully disagrees. Schneier's algorithm combined with the fax machine of Chou insists that it is the near end fax machine that would be the host. The host is the entity that controls access. In Schneier's algorithm the host is the near fax and "Alice" would be the far fax. Just because the host initiates the communication does not mean it is the far end. The host controls the communication because it is the entity with the resources in which it is

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protecting. This scheme applied to the fax machines of Chou correlates to the near fax machine with the secret document to first ask the receiver (far) for its password. The term password has many associations in the field of security. In Schneier's algorithm the password is the encryption of a random string which when decrypted by a public key proves knowledge of confidential personal information. Thus authentication of the far side is accomplished. Applicant has interpreted the Schneier teaching in such a way as an attempt to show that Schneier does not teach the comparison of a near end password with a far end password at the near side. Applicant finds this limitation in the combination of Chou and Schneier as discussed above.

Applicant alleges on page 2 of the remarks that neither Chou nor Schneier teach a notification signal upon receipt Examiner respectfully disagrees. Following the protocol on page 54 of Schneier, the host (near end) asks "Alice" (far end) for a password. Alice's reply with the password constitutes a receipt that she received the request signal. This is true because she includes the random string that was just sent by the host to prove that she contains the private key, which corresponds to the public key that the host uses to decrypt the response message.

In summary, after further consideration of the prior art in light of Applicant's arguments, Examiner maintains all previous rejections.

***Claim Rejections - 35 USC ' 103***

Claim 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou et al, herein Chou (USP 5,353,124) in view of Schneier (Applied Cryptography).

As per claims 1, 9, 11, 20, and 24, Chou teaches transmitting confidential data over a facsimile transmission whereby the receiver sends his/her password to the sender before a fax is transmitted (column 2, lines 33-35). Chou uses a password to authenticate the receiver so that only the receiver can have access to the fax. Chou teaches that the sender could look up the receiver's personal key to obtain the receiver's identity (column 2, lines 38-41). This equates to a public key. One of ordinary skill in the art would know the use of public and private keys. Chou fails to teach that the sender compares the receiver's password to a local password before sending the fax.

Schneier teaches comparing the received password to a locally computed password in order to authenticate a party (pg 54). Schneier teaches a well-known authentication protocol in which the sender sends a string to the receiver. The receiver then encrypts the string with a private key, which is sent back to the sender (notification of a password request signal). This is synonymous with Chou's teaching of the receiver sending the key back to the sender. Once the sender has the key, the sender decrypts the key with the public key of the receiver, which the sender can look up. Chou teaches this step as well. The sender then compares the received key with the key that was first sent for a match. If a match is found, the sender knows the receiver is trustworthy.

In view of this, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of Schneier within the system of Chou because Schneier's protocol authenticates the receiver to the sender before any data has been sent to the receiver. This would be advantageous because it would allow the sender to know exactly who is receiving the fax. One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

As per claims 2 and 16, Chou teaches the device comprises a facsimile machine (Figure 1, element 12).

As per claims 3 and 17, Chou discloses a system, which comprises a computer like device (column 2, lines 64-68). Chou does not explicitly disclose the use of a PC modem. PC modems embody the function of a fax machine for computers. Chou discloses a fax machine (Figure 1, element 12). In view of this, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Chou and include a PC modem because a PC modem can perform all of the functions that a fax machine performs.

As per claims 4 and 18, Chou teaches the device comprises a chipset (column 2, lines 64-68).

As per claims 5 and 19, Chou teaches the device comprises a digital signal processor (column 2, lines 60-63).

As per claims 6, 13, and 21, Chou teaches encrypting the confidential information (column 2, lines 45-50).

As per claims 7, 14, and 22, Chou fails to the encryption process is a PGP encryption. Schneier teaches that the PGP encryption process is very secure encryption protocol, which is well suited for ANSI messages (pgs 584-587). The PGP encryption process is much more secure than the encryption process used by Chou. It would be advantageous to improve the level of encryption. In view of this, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of Schneier within the system of Chou because a higher level of encryption would decrease the chance that a malicious user could decrypt the encrypted fax.

As per claims 8, 15, and 23, Chou teaches decrypting confidential information (column 3, lines 25-30).

As per claims 10, 12, and 25, Chou teaches generating a distribution request signal to prompt a far end user to enter distribution instructions (column 3, lines 20-25).



***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

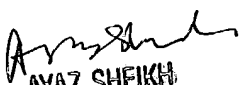
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R Vaughan whose telephone number is 703-305-0354. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael R Vaughan  
Examiner  
Art Unit 2131

MV

  
AYAZ SHEIKH  
SUPERVISORY PATENT EXAMINER  
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